

The WaterShed Partners: An Education Collaboration That Works.

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Executive Summary

The WaterShed Partners is a coalition of over 50 non-profit and public organizations in the Twin Cities metropolitan area. Its mission is to promote public understanding that inspires people to act to protect water quality in watersheds. Formed in 1995, it is directed by a Steering Committee appointed from its member organizations that operates on a consensus basis. The activities of the WaterShed Partners are coordinated through Hamline University's Center for Global Environmental Education.

The WaterShed Partners' hallmark work over the past seven years has been the development of a traveling educational exhibit that has been viewed by over 750,000 people. Additional projects have extended the reach of the Partners' conservation messages to a total estimated audience of 2.5 million people—an audience that continues to grow. Most recently, the Partners have begun work with a collaboration of over 100 Minnesota cities under the direction of League of Minnesota Cities and the Minnesota Pollution Control Agency to develop a guide plan for implementing the NPDES Phase II in Minnesota. We are also developing an integrated education initiative that will address the six minimum control education measures with multimedia, printed materials, exhibits, community outreach and education, and K-12 education projects.

Introduction

The WaterShed Partners has grown from a small group of educators into a collaborative of over 50 nonprofit organizations, universities, businesses, and government agencies (local, regional and national). This consensus-based coalition continues to grow and create new projects. We have six main programming areas that take differing approaches to educating the public about watersheds and non-point source pollution. Over the past seven years, our educational messages have reached over 2.5 million people and we have administered over \$1.5 million in grant funds—all without existing as an official entity!

The WaterShed Partners' education initiatives help citizens make informed, environmentally conscious decisions and take responsible actions. These efforts target a key underlying issue that makes non-point source pollution (NPS) such a challenge: few people are aware of the impacts of their own daily activities on their watershed. There is a tendency to think it is the "other person" who is

responsible for NPS. WaterShed Partners' projects emphasize that we are all potential polluters and that there are some basic things that can be done to minimize the pollution of our rivers. Toward this end, we are guided by three primary goals:

1. Educate the public about what a watershed is and how a watershed functions
2. Provide the public with an understanding of their personal connection to their watershed and their impact on NPS
3. Provide motivation to act in support of a healthy watershed

To achieve our goals, the WaterShed Partners have created six integrated programs that have a cumulative effect greater than the sum of their parts. Our program growth has resulted from a combination of strategic planning and entrepreneurship. These six programs include: the WaterShed Exhibit, the Metro Media Campaign, the Volunteer Stream Monitoring Partnership, Project NEMO, The WaterShed Education Network, and the League of Minnesota Cities NPDES Phase II Education Initiative.

Watershed Exhibit

The Watershed Exhibit is a suite of museum-quality, hands-on interactive educational modules that may be used independently or together that has engaged more than 750,000 people over the past seven years. Four exhibit elements, each of which occupies a collapsible 8-foot table against a colorful fabric banner backdrop, focus on the following topics:

- What is a Watershed?
- What is your Watershed Address?
- Your Street Flows to the River
- Clean Water Starts with You

In addition, an interactive multimedia kiosk program (in English, Spanish, and Hmong) with six modules that reinforce the messages conveyed through the four table displays can be incorporated into the exhibit or used separately. The exhibit can be set up under a specially designed tent. A van has been dedicated to transporting the exhibit.

The goal of this interactive exhibit is to educate participants so that they will leave it knowing what a watershed is, understanding their personal connections to their watershed, and being motivated to take stewardship actions. For example, the interactive kiosk effectively delivers the message to participants that polluted runoff from their homes and yards flows, untreated, directly to the Mississippi River.

The development and implementation of the exhibit was made possible by significant funding from the Metropolitan Council and by other WaterShed Partners.

This past year, the WaterShed Exhibit accomplished the following:

- Served over 160,000 people
- Increased capacity through WaterShed Ambassadors, WaterShed van and multimedia kiosk system has proved successful
- Created new urban sprawl education module for the multimedia kiosk
- Developed new models to use local students as educators and distribute kiosks to public buildings as a service learning project
- Conducted national marketing survey to explore market for NPS education tools
- Expanded impact at the Minnesota State Fair by integrating exhibit into MN Pollution Control Agency booth

“Think Clean Water” Campaign

In 1999, Metro WaterShed Partners implemented the “Think Clean Water” communications campaign that used broadcast media to communicate two main messages: 1) Keep grass clippings, leaves and fertilizer out of the street, and 2) Use low phosphorus lawn fertilizer. Evaluation at the conclusion of the campaign showed that 57% of individuals surveyed heard or read information about using low phosphorus fertilizer and 49% heard or read information about keeping grass clippings and leaves out of the street. Over 2 million media exposures were created by this campaign. The campaign was supported by a \$200,000 grant from the Metropolitan Council and untold in-kind labor of Metro WaterShed Partner members.

Additionally, this past year the following has been accomplished:

- Minnesota has passed a no phosphorus bill at the state legislature
- WaterShed Partners have created an educational brochure that addresses the no phosphorous fertilizer regulation
- \$90,000 has been secured to initiate another media campaign

Volunteer Stream Monitoring Partnership (VSMP)

In the past five years, interest in volunteer monitoring has exploded in the Twin Cities area, with 39 volunteer monitoring groups identified in a recent inventory having begun their activities after 1994. In November 1999, the WaterShed Partners coordinated the development of a strategic plan for coordination of volunteer stream monitoring in the seven-county Twin Cities metropolitan area. Representatives from 15 organizations participated in the development of the strategic plan.

Volunteer stream monitoring programs are based on three experience-tested principles:

1. Volunteers can collect reliable, meaningful data that can be used by decision makers in watershed planning and management
2. Volunteer monitoring programs promote watershed stewardship by engaging volunteers in understanding and managing natural resources
3. Successful volunteer monitoring is a blend of education and science, supported by local units of government, educators, agencies, industry, and non-profits

The goals of the Volunteer Stream Monitoring Partnership are as follows:

- To facilitate the collection and management of quality volunteer stream monitoring data
- To effectively involve local, regional, and state agencies, including encouraging them to use volunteer generated data
- To engage volunteers

In the process of achieving these goals, we anticipate that the public will become more aware of river issues and more inclined to protect water resources. We also expect that water quality-monitoring resources will expand as the quality and amount of data available for decision-making improves at the state, community, and individual level. Finally, we anticipate that a centralized data management system with a watershed perspective will be developed and made accessible to agencies and volunteers.

Quality assurance and quality control of the collection of data is an important component of this partnership. All data collection is based on standard EPA protocol in coordination with the Minnesota Pollution Control Agency and the Metropolitan Regional Council. Data is collected by volunteer students and their teachers. The data is then checked by the county coordinators and double-checked by the VSPM coordinator. At that time the data is entered into a database coordinated by the Metropolitan Council. This information has been used by various counties in their year end reports and in developing their water plans.

In the past year the VSMP has:

- Convened first official year of operation focusing on ensuring quality data, strengthening partner collaboration and expanding outreach, securing funds and increasing capacity
- Worked with nearly 1,900 citizen volunteers
- Hosted a River Summit for over 230 students and professionals
- Provided 13 trainings for local partners

- Monitored 57 different stream sites in the five-county metro area

WaterShed Education Network for Teachers

The Metro WaterShed Education Network uses communication, coordination and collaboration to educate youth about NPS; integrate watershed education into school systems; and leverage the energy created by the award-winning WaterShed traveling exhibit. The WaterShed Education Network Project has successfully increased the capacity of teachers and schools to integrate water quality education into their students' learning activities.

The WaterShed Education Network has:

- Developed a WaterShed Education Network Web site with educational resources and calls for stewardship action
- Integrated water issues into the Sharing Environmental Education Knowledge (SEEK) Web-based environmental education clearing house
- Created a WaterShed Listserv for over 180 educators
- Created a WaterShed Hotline for individuals
- Recruited and trained teachers as WaterShed Ambassadors through hands-on summer institutes, the watershed training sessions, and online graduate course work
- Created an award-winning graduate course for 20 St. Paul educators that infused watershed education into the St. Paul Chamber of Commerce's Teacher in the Work Place program
- Created the framework for the WaterShed Partners to act as watershed content experts
- Infused watershed education into the St. Paul, Minneapolis, and suburban schools systems, and the Grand Excursion 2004 Special Event

Project NEMO (Nonpoint Education for Municipal Officials)

Project NEMO is an educational program for land-use decision-makers that addresses the relationship between land use and natural resources protection, with a focus on water resources. NEMO was created in 1991 at the University of Connecticut and, due to the success of the program, has grown to become a national network of projects in 15 states. "Linking Land Use to Water Quality and Linking Town Hall to Technology" is the NEMO motto.

Land use in the United States is largely decided locally by elected and appointed officials serving on county and municipal boards and commissions who have not been chosen for their knowledge of natural resource protection and often have little or no professional staff to support them. As a result, local land-use decision makers have been largely left out of the nonpoint source pollution reduction equation. A primary goal of Project NEMO nationwide is to provide education for these officials and to inspire them to take action.

For the Minnesota NEMO program, the first goal of the project is to develop and provide locally adapted NPS educational materials for a targeted audience of local land-use officials and thereby enable them to plan for growth while addressing water quality through wise land-use decisions. The second goal is to incorporate this educational message into actual changes in policies, practices, and plans at a local level. The third goal is to bring together and develop relationships between regional and state agencies, water management organizations, conservation districts and other associations interested using land-management decisions to protect water quality and natural resources. The fourth goal is to establish a coordinator position that will be responsible for implementation and expansion of the NEMO program in the Twin Cities Metropolitan area and the achievement of goals 1-3.

Project NEMO has successfully:

- Presented Project NEMO programs to over 40 cities
- Received additional funds from the Met Council
- Been identified by the Minnesota Environmental Quality Advisory as a major initiative for next year
- Received EPA 319 funds
- Impacted over 200 city council members and decision makers

League of Minnesota Cities NPDES Phase II Guide Plan and Educational Initiative

Hamline University and WaterShed Partners have recently worked with the over 100 cities, coordinated through the League of Minnesota Cities and the Minnesota Pollution Control Agency, to assist in developing the NPDES Phase II Guide Plan. This plan provides cities a template to develop their Phase II plans in Minnesota. It is an attempt to provide guidance and standardization for the cities in order for them to best meet their needs. The WaterShed Partners has focused on the educational component's six minimum control measures, while the engineering firms of Boonestro and Associates and AMEC have provided the primary structure of the document and other technical information.

In the past year we have:

- Assisted in writing the education component of the Phase II Guide Plan, with an emphasis on educational components of the six minimum control measures
- Provided training sessions for over 80 cities
- Made plans to develop an integrated campaign with media, printed materials, exhibits, community outreach and education and K-12 education projects

Results

Over the past seven years, over 2.5 million people have been impacted in the Twin Cities Metro Area by WaterShed Partners projects. Since the WaterShed Partners programs differ, not all of the impacts have been the same, nor can they all be measured by the same gauge. While we are still in the formative evaluation stage of these initiatives, evaluations from two independent sources have begun to document impacts.

An independent evaluation of the WaterShed Exhibit by the Wilder Research Center has indicated:

- 75% of the visitors to the WaterShed are able to accurately describe what a watershed is
- 60% of the visitors to the WaterShed exhibit gain ideas for keeping their watersheds healthy and reducing their NPS pollution contributions

An independent evaluation of the WaterShed Partners' Media Campaign indicates that:

- 57% of individuals surveyed heard or read information about using low-phosphorus fertilizer
- 49% heard or read information about keeping grass clippings and leaves out of the street

One of the most interesting components of this project is comparing the level of NPS awareness in Minnesota to the nation at large. Using the National Environmental Education Training Foundation's National Report Cards on Environmental Knowledge, Attitudes and Behaviors as a guide, Hamline University conducted a survey of the citizens of the State of Minnesota and compared it to the national standard. In most categories, Minnesotans scores were similar to national averages. Regarding knowledge of non-point source pollution, however, Minnesotans scored over 100% higher than the national average. That is to say, only 24% of the nation understood NPS, while 52% of Minnesotans understood this concept.

While this cannot be directly correlated to the work of the WaterShed Partners, we believe our efforts have played a small role in this outcome.

Conclusion

The WaterShed Partners is a collaboration that is effective in many different ways. By engaging educators and organizations in the Twin Cities that have a stake in educating the public about watersheds and non-point source pollution, we have been able to build on and greatly magnify the impacts of our partner organizations.

Three critical components for success can be identified:

1. Information Sharing—Monthly meetings provide a forum for the Partners to share information, network, and gain new knowledge. Sometimes, a lot of business gets done during the informal time before and after the meetings. There is much less “reinventing the wheel” in local areas.
2. Pooled Resources—By working together in a coordinated fashion, the Partners are able to create products and services that would be difficult to create individually. This system provides incentive for collaboration. For example, the WaterShed Exhibit is a resource that can be used by any of the partners when they need it, and they do not all need to own a \$100,000 exhibit.
3. Coordinated Efforts—By coordinating efforts, organizations can more effectively focus on their particular niches and put forward an integrated effort to educate the public about how to protect their watersheds. Synergies can be built around programming and fund-raising opportunities.

Through collaboration and consensus, the WaterShed Partners has been able to serve over 2.5 million people in the Twin Cities Metro Area in rich and diverse ways. Our hope is to be able to leverage this partnership to assist others in the local, regional and national setting to better educate the public and get them to take action about important watershed issues.

Metro WaterShed Partners Milestones

1992-3

An idea by naturalist Karen Kobey of Hennepin Parks stimulates a network of agencies, non-profits and educators interested in the future of the Mississippi River to collaborate on a conference, “The Ever Changing Mississippi” held in Feb, 1993.

1994-5

“Summer of the River,” coordinated by Shelley Shreffler of Macalester College, and an informal partner network provides exhibits at outdoor events under banner entitled “WaterShed” (term coined by Ron Erickson of National Park Service). Displays include historical and water quality topics.

1995

A fall conference entitled “Awakening the Watershed,” sponsored by Summer of the River and the Mississippi National River & Recreation Area (MNRRA) is held in Red Wing, and provides a springboard for educational partnership development.

In December, a group is convened by MNRRA to further develop a watershed education partnership and an interactive watershed exhibit. (Exhibit Goal agreed: “The visitor to the WaterShed will leave with the knowledge of what a watershed is, an understanding of their personal connections to their watershed, and the motivation to act in support of a healthy watershed.”)

First regular meeting attendees: Anoka County Parks, Army Corps of Engineers, Center for Global Environmental Education (CGEE), Friends of the Mississippi River, Greening the Great River Park, Metropolitan Council Environmental Services, Minnesota Valley National Wildlife Refuge, MNRRA, Science Museum of Minnesota.

1996

Monthly meetings established, convened and facilitated by MNRRA.

Group name and Mission Statement established: “The *WaterShed Partners* is an informal association of organizations committed to addressing shared goals pertaining to *watershed education* through educational projects, networking and sharing resources.” Focus is on educating to prevent runoff pollution.

Prototype exhibits developed and utilized at outdoor, summer events.

First \$100,000 grant received from Metropolitan Council to create WaterShed interactive, mobile exhibits. CGEE coordinates grant process for WSP.

Internal processes and structures established, including consensus decision making and Steering Committee.

First Steering Committee members include: Cliff Aichinger, Marie Asgian, Tracy Fredin, Pauline Langsdorf, and Lyndon Torstenson.

Exhibit design development begins facilitated by Science Museum of Minnesota (SMM), and involving a committee of the WaterShed Partners.

Magnets and set of brochures created by NEC, CBE, MNRRA & WSP.

1997

New “WaterShed” exhibits built by Science Museum of Minnesota are completed. Four tables include: 1) What is a WaterShed? 2) What is your watershed address? 3) Your street flows to the river, and 4) Clean water begins with you. Custom modified tent is purchased to house exhibits in events.

New mission established: “The WaterShed Partners promote a public understanding that inspires people to act to protect water quality in their watershed.”

150,000 people interact with WaterShed exhibits in 1997, including over 45,000 at the Minnesota State Fair.

Number of partners grows from 12 to 32.

Committees include steering, exhibits, education, evaluation, public outreach.

1998

Public media campaign (“Water Quality Action Campaign”) undertaken in collaboration with Board of Water & Soil Resources reaches 2.5 million households.

Computer interactive developed.

Staffing support for exhibits and partnership established through CGEE.

Exhibit evaluation conducted by Wilder Foundation reveals notable learning occurring in response to exhibit interactions: 92% correctly define watershed.

CGEE establishes WaterShed Partners website.

WSP receive Partnership Minnesota award.

Metro WaterShed Education Network initiated at CGEE with \$35,000 grant for the Metropolitan Council

1999

“Water Education Resource” book of ready-to-use educational materials created.

WSP awarded top honors by the Minnesota Environmental Initiative.

WSP receive MN GREAT award (Minnesota Government Reaching Environmental Achievements Together.)

Water Quality Monitoring initiative undertaken.

Partners number over 40; monthly meeting attendance regularly over 25.

Sponsorship of national conference considered.

Watershed Stewards Curriculum established and modeled at Farnsworth Elementary School.

2000

Volunteer Stream Monitoring Project receives \$500,000 grant over 3 yrs from Met Council.

LCMR funding proposals developed and presented to Legislative committee.

“Project NEMO” (Nonpoint Education for Municipal Officials) launched.

2001

McKnight awards \$150,000 two-year grant to CGEE for WSP programs.

Over \$1.5 million in grants have been successfully administered by the WSPs.
First annual River Summit held for stream monitoring volunteers.
Project NEMO gets \$93,000 grant from Metropolitan Council.
Van purchased and outfitted for exhibits and events use, thanks to 50/50 matching challenge grant from Ramsey Washington Metro Watershed District.
Name “Metro WaterShed Partners” (MWSP) adopted and officially registered after “Watershed Partners” name is found to be already registered by a real estate company.
MWSP officially becomes project of CGEE, providing liability and other benefits.

2002

State phosphorus legislation passes, thanks to MN Dept of Agriculture, and several WSPs.
Over half a million people have interacted with the WaterShed exhibits since 1997; the exhibits have been displayed at national conferences and have been a national model.
Nearly 100,000 people interact with WaterShed exhibits at State Fair alone.
Project NEMO receives \$125,000 “319” grant from MN Pollution Control Agency, and \$50,000 from Metropolitan Council.
\$50,000 grant for “Think Clean Water” media campaign from Metropolitan Council
\$40,000 grant for “Think clean Water” media campaign from Office of Environmental Assistance.